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The Association of Insufficient Sleep with Smoking, Obesity, Physical Inactivity, and Poor Quality of Life: Results from the 2008 North Carolina Behavioral Risk Factor Surveillance System (BRFSS) Survey

by
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Introduction

It is estimated that sleep related problems, such as chronic sleep-loss, affect 50 to 70 million Americans of all ages.¹ For public health, the extent and repercussion of this problem has largely been under-recognized, and the public remains relatively un-informed of the health consequences associated with prolonged and insufficient sleep. Research has found that insufficient sleep is associated with a wide range of adverse health conditions including hypertension, diabetes, obesity, depression, heart attack, and stroke, as well as various health risk behaviors, such as smoking.²⁻⁴

It is only within the last decade that on-going, population-based surveillance and research in sleep disorders has gained national attention and commitment. Recommendation 5.3 from the 2006 Institute of Medicine report, entitled, "Sleep Disorders and Sleep Deprivation: An Unmet Public Health Problem,"⁵ called upon the Centers for Disease Control and Prevention (CDC) and the National Center on Sleep Disorders Research to

support and expand surveillance of sleep patterns in the U.S. population. In response, the CDC introduced a question on insufficient sleep in the 2008 BRFSS Core Questionnaire, which consists of CDC-sponsored questions asked by all 50 states participating in the BRFSS Survey.

This study builds upon a previous study conducted by researchers at the CDC. Using 2002 BRFSS survey data from an 18-state pilot study of the insufficient sleep question, the authors (Strine and Chapman) examined the association of frequent sleep insufficiency with poor quality of life and selected health risk behaviors.⁶ Frequent sleep insufficiency (high risk) was defined as a dichotomous measure, i.e., respondent report of 14 or more days in the past 30 days of insufficient sleep, versus the report of less than 14 or no days of insufficient sleep (low risk). The results from the Strine and Chapman study revealed that frequent sleep insufficiency was strongly associated with poor quality of life, including smoking, physical inactivity, and heavy drinking among males.